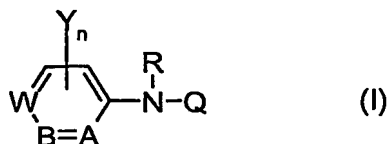


## Claims:

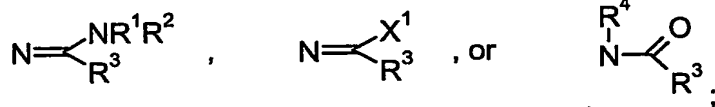
1. The use of compounds of formula I



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wherein

Q is



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X<sup>1</sup> is chlorine, bromine, or fluorine;

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R<sup>1</sup>, R<sup>2</sup> are each independently hydrogen, C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>3</sub>-C<sub>10</sub>-alkenyl, C<sub>3</sub>-C<sub>10</sub>-alkynyl, or C<sub>3</sub>-C<sub>12</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di(C<sub>1</sub>-C<sub>6</sub>-alkyl)-amino, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonylamino, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, or C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, wherein the carbon atoms in these groups may be substituted with

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1 to 3 halogen, hydroxy, nitro, cyano, amino, mercapto, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-haloalkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-haloalkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-haloalkylsulfinyl, or C<sub>3</sub>-C<sub>6</sub>-cycloalkyl which may be substituted with 1 to 3 R<sup>#</sup> groups, or

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R<sup>#</sup> is halogen, cyano, nitro, hydroxy, mercapto, amino, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>2</sub>-C<sub>6</sub>-alkenyloxy, C<sub>2</sub>-C<sub>6</sub>-alkynyloxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylthio, or C<sub>1</sub>-C<sub>6</sub>-haloalkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di(C<sub>1</sub>-C<sub>6</sub>-alkyl)-amino, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, or di(C<sub>1</sub>-C<sub>6</sub>-alkyl)aminocarbonyl;

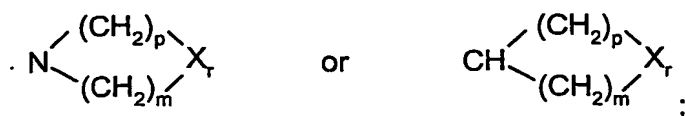
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formyl, C<sub>1</sub>-C<sub>6</sub>-alkylcarbonyl, C(=O)NR<sup>a</sup>R<sup>b</sup>, CO<sub>2</sub>R<sup>c</sup>, R<sup>d</sup>, R<sup>e</sup>, phenyl which may be substituted with 1 to 3 R<sup>#</sup> groups, or pyridyl which may be substituted with 1 to 3 R<sup>#</sup> groups,

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R<sup>a</sup>, R<sup>b</sup>, R<sup>c</sup> are each independently hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl which may be substituted with 1 to 3 groups R<sup>#</sup>;

R<sup>d</sup> is NR<sup>f</sup>R<sup>g</sup> or



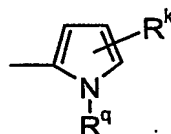
$R^i, R^j$  are each independently hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl which may be substituted with 1 to 3 groups R<sup>#</sup>;

$p, m$  are each independently 0, 1, 2, or 3, with the proviso that  $p$  and  $m$  are not both 0.

$X$  is oxygen, sulfur, amino, C<sub>1</sub>-C<sub>4</sub>-alkylamino, or phenylamino, or, if  $p$  is 0 then  $X$  can also be phenoxy or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

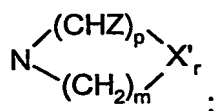
$r$  is 0 or 1;

$R^e$  is



$R^k, R^q$  are each independently hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl which may be substituted with 1 to 3 groups R<sup>#</sup>; or

$R^1$  and  $R^2$  may be taken together to form a ring represented by the structure



$p, m$  are 1, 2 or 3;

$X'_r$  is oxygen, sulfur, amino, C<sub>1</sub>-C<sub>4</sub>-alkylamino, phenylamino, or methylene;

$Z$  is C<sub>1</sub>-C<sub>4</sub>-alkyl or phenyl;

$R^3$  is hydrogen, C<sub>1</sub>-C<sub>10</sub>-alkyl, C<sub>2</sub>-C<sub>10</sub>-alkenyl, C<sub>2</sub>-C<sub>10</sub>-alkynyl, C<sub>3</sub>-C<sub>12</sub>-cycloalkyl, wherein the carbon atoms in these groups may be partially or fully halogenated or substituted with

1 to 3 cyano, nitro, hydroxy, mercapto, amino, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>3</sub>-C<sub>6</sub>-cycloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-alkylamino, di(C<sub>1</sub>-C<sub>6</sub>-alkyl)-amino, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, or C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl groups, wherein the carbon atoms in these groups may be substituted by

1 to 3 halogen atoms, a 5- to 6-membered aromatic ring system which may contain 1 to 4 heteroatoms selected from

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oxygen, sulfur and nitrogen and which may be substituted with any combination of 1 to 5 halogen atoms, 1 to 3 C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, nitro, or cyano groups, wherein the carbon atoms in these groups may be substituted by 1 to 3 halogen atoms, or

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phenoxy, which may be substituted with any combination of 1 to 5 halogen atoms, 1 to 3 C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, nitro, or cyano groups, wherein the carbon atoms in these groups may be substituted by 1 to 3 halogen atoms, or

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a 3- to 6-membered saturated or partially unsaturated ring system which contains 1 to 3 heteroatoms selected from oxygen, sulfur and nitrogen and which may be substituted with any combination of 1 to 5 halogen atoms, 1 to 3 C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, nitro, or cyano groups, wherein the carbon atoms in these groups may be substituted by 1 to 3 halogen atoms,

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a 3- to 6-membered saturated or partially unsaturated ring system which contains 1 to 3 heteroatoms selected from oxygen, sulfur and nitrogen and which is unsubstituted or substituted with any combination of 1 to 5 halogen atoms, 1 to 3 C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkoxy, C<sub>1</sub>-C<sub>6</sub>-haloalkoxy, nitro, or cyano groups, wherein the carbon atoms in these groups may be substituted by 1 to 3 halogen atoms;

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R, R<sup>4</sup> are each independently hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, C<sub>1</sub>-C<sub>6</sub>-alkylaminocarbonyl, or di(C<sub>1</sub>-C<sub>6</sub>-alkyl)-aminocarbonyl, wherein the carbon atoms in these groups may be substituted with 1 to 3 groups R<sup>#</sup>;

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A is C-R<sup>5</sup> or N;

B is C-R<sup>6</sup> or N;

W is C-R<sup>7</sup> or N;

with the proviso that one of A, B and W is other than N;

$R^5$ ,  $R^6$ ,  $R^7$  are each independently hydrogen, halogen, nitro, cyano, amino, mercapto, hydroxy,  $C_1$ - $C_{10}$ -alkyl,  $C_2$ - $C_{10}$ -alkenyl,  $C_2$ - $C_{10}$ -alkynyl,  $C_3$ - $C_6$ -cycloalkyl,  $C_1$ - $C_6$ -alkoxy,  $C_1$ - $C_6$ -alkylamino, di( $C_1$ - $C_6$ -alkyl)-amino,  $C_1$ - $C_6$ -alkylthio,  $C_1$ - $C_6$ -alkylsulfonyl, or  $C_1$ - $C_6$ -alkylsulfinyl, wherein the carbon atoms in these groups may be substituted with 1 to 3 groups  $R^\#$

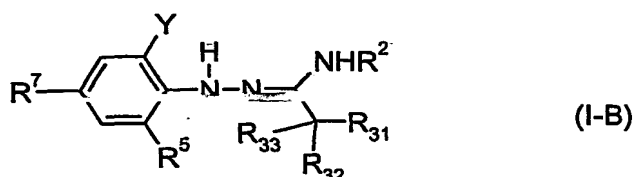
a 5- to 6-membered aromatic ringsystem which may contain 1 to 4 heteroatoms selected from oxygen, sulfur and nitrogen and which may be substituted with any combination of 1 to 5 halogen atoms, 1 to 3  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -haloalkyl,  $C_1$ - $C_6$ -alkylthio,  $C_1$ - $C_6$ -haloalkylthio,  $C_1$ - $C_6$ -alkylsulfonyl,  $C_1$ - $C_6$ -alkylsulfinyl,  $C_1$ - $C_6$ -haloalkylsulfonyl,  $C_1$ - $C_6$ -haloalkylsulfinyl,  $C_1$ - $C_6$ -alkoxy,  $C_1$ - $C_6$ -haloalkoxy, mercapto, hydroxy, amino, nitro, or cyano groups, wherein the carbon atoms in these groups may be substituted with 1 to 3 groups  $R^\#$ ;

$Y$  is hydrogen, halogen, cyano, nitro, amino, hydroxy, mercapto,  $C_1$ - $C_6$ -alkyl,  $C_2$ - $C_{10}$ -alkenyl,  $C_2$ - $C_{10}$ -alkynyl,  $C_3$ - $C_6$ -cycloalkyl,  $C_1$ - $C_6$ -alkoxy,  $C_1$ - $C_6$ -alkylamino, di( $C_1$ - $C_6$ )-alkylamino,  $C_1$ - $C_6$ -alkylthio,  $C_1$ - $C_6$ -alkylsulfonyl, or  $C_1$ - $C_6$ -alkylsulfinyl, wherein the carbon atoms in these groups may be substituted with 1 to 3 groups  $R^\#$ ;

$n$  is 0, 1, or 2;

or the enantiomers or diastereomers, veterinarily acceptable salts or esters thereof,  
for combating parasites in and on animals.

2. The use according to claim 1 wherein the compounds of formula I are compounds of formula I-B



wherein

$R^7$  is chlorine or trifluoromethyl;

$R^5$  and  $Y$  are each independently chlorine or bromine;

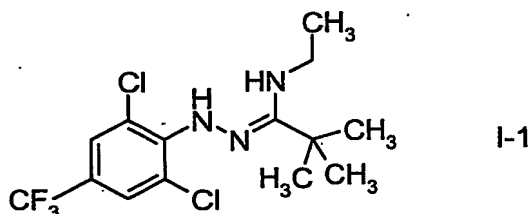
$R^2$  is  $C_1$ - $C_6$ -alkyl,  $C_3$ - $C_6$ -alkenyl,  $C_3$ - $C_6$ -alkynyl, or  $C_3$ - $C_6$ -cycloalkyl which may be substituted with 1 to 3 halogen atoms, or  $C_2$ - $C_4$ -alkyl which is substituted by  $C_1$ - $C_4$ -alkoxy;

5  $R^{31}$  and  $R^{32}$  are  $C_1$ - $C_6$ -alkyl or may be taken together to form  $C_3$ - $C_6$ -cycloalkyl which may be unsubstituted or substituted by 1 to 3 halogen atoms;

$R^{33}$  is hydrogen or  $C_1$ - $C_6$ -alkyl,

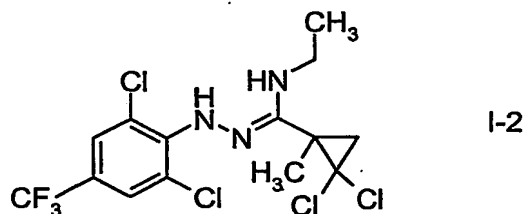
10 or the enantiomers or veterinarily acceptable salts thereof.

3. The use according to claims 1 or 2 wherein the compound of formula I is a compound of formula I-1.



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4. The use according to claims 1 or 2 wherein the compound of formula I is a compound of formula I-2.



20 5. The use as claimed in claims 1 to 4 wherein the parasites are selected from the Diptera, Siphonaptera, and Ixodida orders.

6. The use as claimed in claims 1 to 5 wherein the animals are cats or dogs.

25 7. A method for treating, controlling, preventing or protecting animals against infestation or infection by parasites which comprises orally, topically or parenterally administering or applying to the animals a parasitically effective amount of a compound of formula I as defined in any one of claims 1 to 4.

30 8. The method as claimed in claim 7 wherein the parasites are selected from the Diptera, Siphonaptera, and Ixodida orders.

9. The method as claimed in claims 7 or 8 wherein the animals are cats or dogs.

10. A process for the preparation of a composition for treating, controlling, preventing or protecting animals against infestation or infection by parasites which comprises a parasitically effective amount of a compound of formula I as defined in any
- 5 one of claims 1 to 4.